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(54) **Gene group applicable to cancer prognostication**

(57) To provide a novel method for determining the risk of lymph node metastasis of breast cancer uses as an index the difference in the expression levels of marker genes between metastatic breast cancer tissue (or cell) and non-metastatic breast cancer tissue (or cell). The method involves (1) measuring the expression level of a gene having a base sequence in human metastatic breast cancer tissue (or cell), (2) measuring the expres-

sion level of the same gene in human non-metastatic breast cancer tissue (or cell), and (3) comparing the expression level of (1) with the expression level of (2) and determine the risk of lymph node metastasis of breast cancer based on the difference between the expression levels.

EP 2 380 978 A3



EUROPEAN SEARCH REPORT

Application Number
EP 11 00 5113

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The present search report has been drawn up for all claims			
4	Place of search Munich	Date of completion of the search 9 January 2012	Examiner Dolce, Luca
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

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EUROPEAN SEARCH REPORT

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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 9 January 2012	Examiner Dolce, Luca
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03/82 (P04C01)



Application Number

EP 11 00 5113

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 11 00 5113

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1, 2(completely); 3, 4(partially)

Method for determining the risk of lymph node metastasis of breast cancer (claims 1-2 all completely), method for determining the risk of lymph node metastasis of breast cancer based on a marker gene with accession number NM002862 (aliases: PYGB; phosphorylase, glycogen, brain, glycogen phosphorylase B)

2-4. claims: 3, 4(partially)

same as above for each of the remaining markers of claim 3

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 11 00 5113

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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EP 11 00 5113

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